

# **CDA Software Factory**

## **Headquarters Standard Systems Group**

# **New Horizons Symposium**



**Presented To:**  
**New Horizons Symposium**  
**13-14 November 1997**

**Presented By:**  
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**E-mail: [heitkampk@ssg.gunter.af.mil](mailto:heitkampk@ssg.gunter.af.mil)**

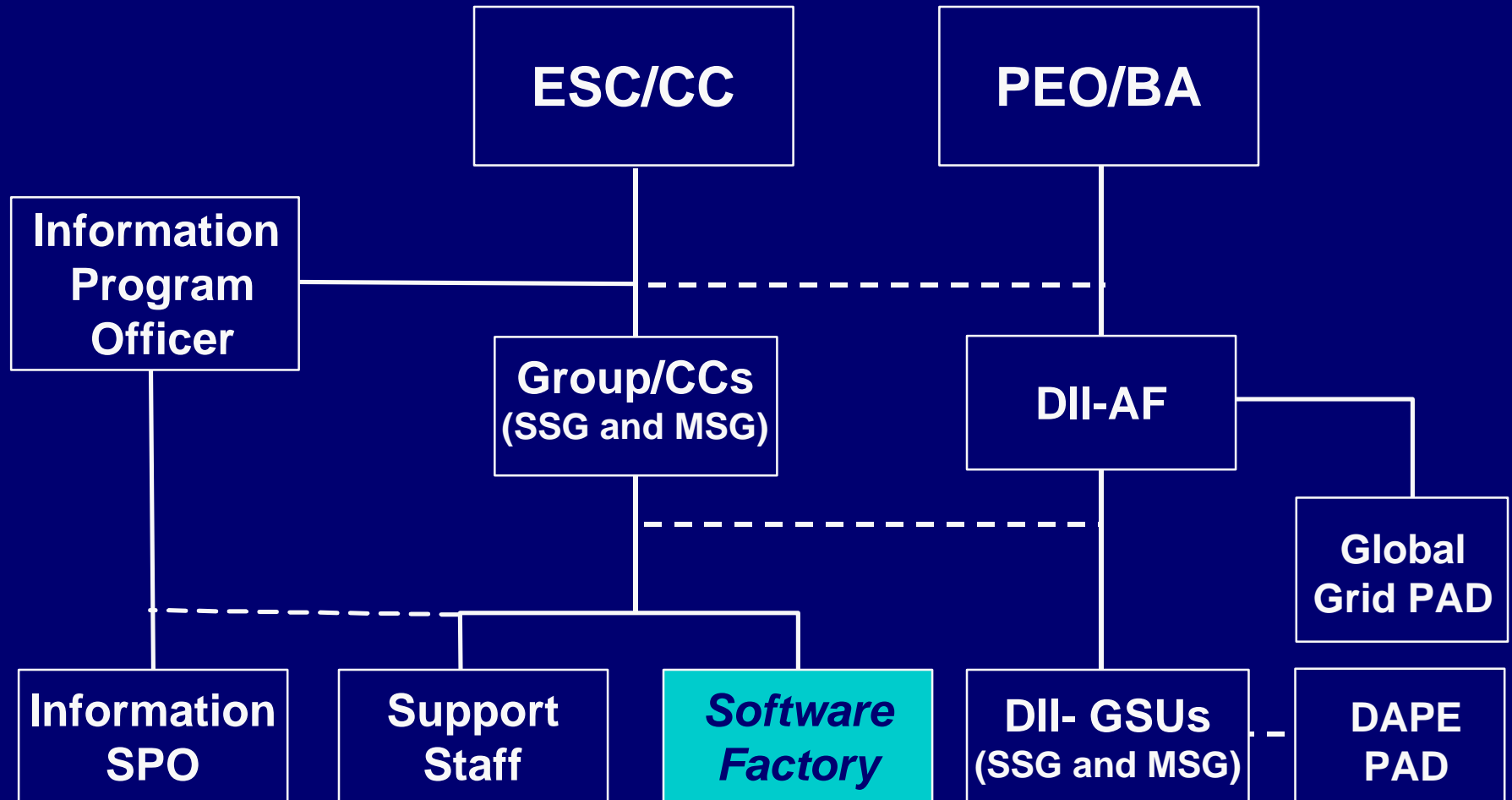
# OUTLINE

- ◆ New Organization
- ◆ New Mission
- ◆ Existing contracts/New projects
- ◆ Industry opportunities/Future needs

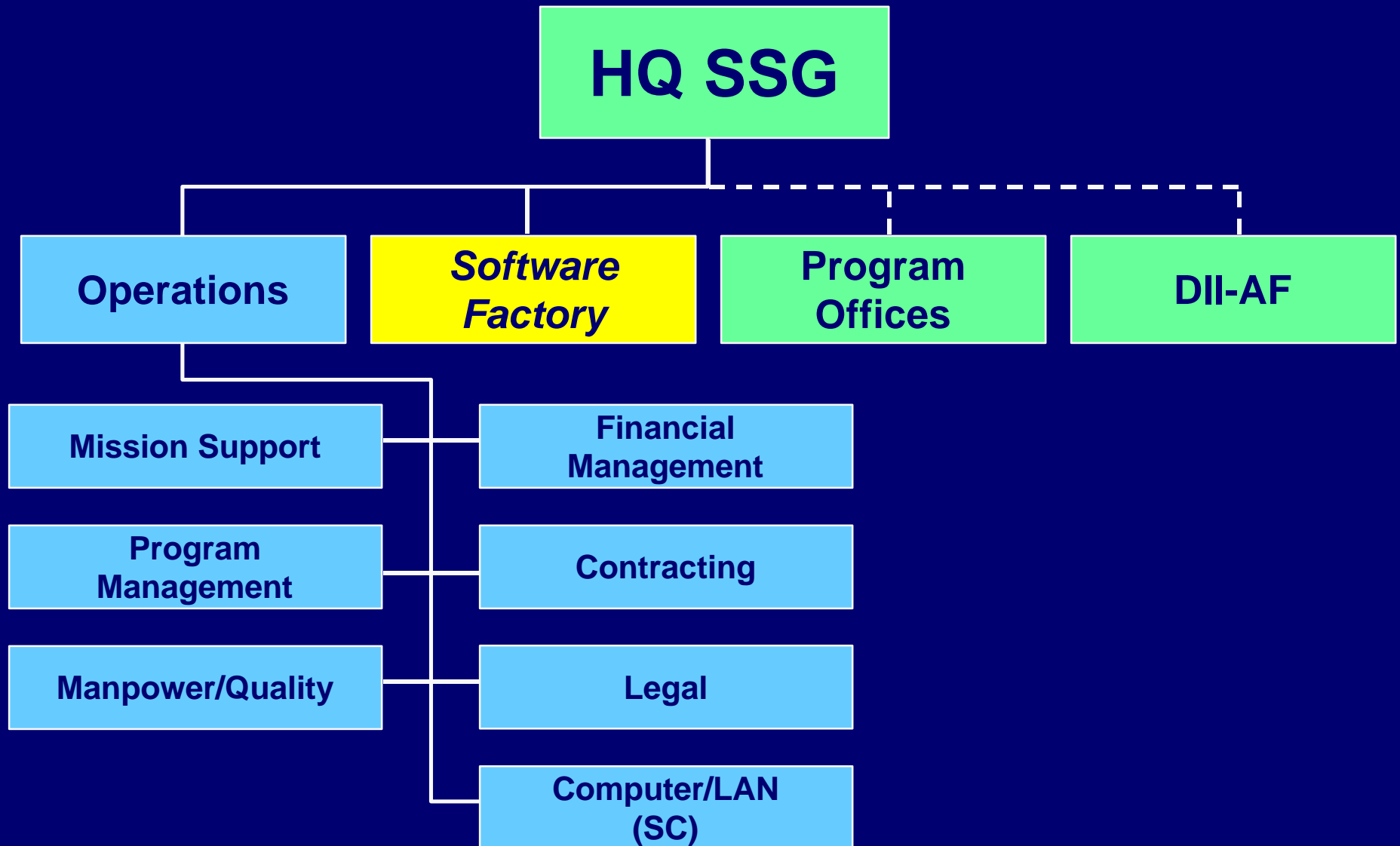
# MISSION

- ◆ For *organic* Combat Support Information Systems (CSIS), the Software Factories will configuration manage, design, develop, code, test, integrate, control distribution, and sustain software.
- ◆ For *all systems* within the ESC CDA, the Software Factories will accomplish *independent test* functions, consolidated *field support*, and centralized *distribution* of software.

# CDA ORGANIZATION



# HQ SSG ORGANIZATION



# SOFTWARE FACTORY ORGANIZATION

Mr. K. Heitkamp, Dir.  
Col. S. Jones, Dep. Dir.  
(334) 416-4405

Business  
Area

Mr. J. Macker  
**Configuration  
Management**  
HQ SSG/SFC  
(334) 416-5753

- Configuration Management
- Release Control
- Technology Management

TBD  
**System  
Development**  
HQ SSG/SFM  
(334) 416-3172

- Mainframe
- Client Server
- Database

Mr. Bartoszewicz  
**Customer  
Support**  
HQ SSG/SFS  
(334) 416-1082

- Field Assistance
- Year 2000
- AFNSC
- Installation and Training

Lt. Col. R. Pope  
**Engineering**  
HQ SSG/SFE  
(334) 416-5860

- EC/EDI
- Engineering Services
- Reuse
- System Support

Mr. W. Wallis  
**Operations**  
HQ SSG/SFO  
(334) 416-5223

- Process Assurance
- Process Engineering
- Management Support
- Resource Management

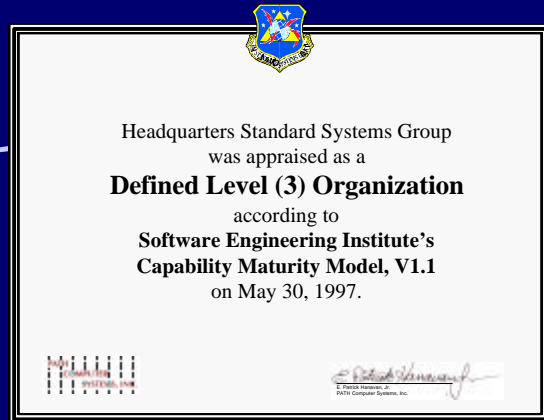
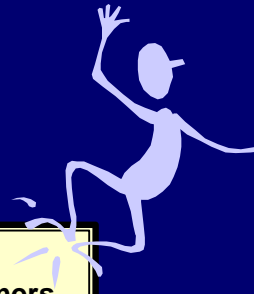
Mr. C. Jordan  
**Independent  
Test**  
HQ SSG/SFT  
(334) 416-5755

- Test and Evaluation
- Test Planning

# CMM LEVEL 3 FACTORY

## BENEFITS

- Provides Common Basis for Workers, Managers, and Customers
- Improvements Are More Successful and Sustained by Defining, Measuring, and Controlling the Process
- People Are More Effective Within the Organization
- 85%-95% Of the Problems Are Caused by the System, Not People
- Improves Likelihood of Success Based on Past Successes



\* SEI Profile Update - May 97  
Only 13.1% S/W Organizations at this level  
(Based on 553 organizations total)

## DEFINED (3)

Peer reviews  
Intergroup coordination  
Software product engineering  
Integrated software management  
Training program  
Organization process definition  
Organization process focus

## REPEATABLE (2)

Software configuration management  
Software quality assurance  
Software subcontract management  
Software project tracking and oversight  
Software project planning  
Requirements management

✓ 17- Goals  
Satisfied

## INITIAL (1)

✓ 20 - Goals  
Satisfied

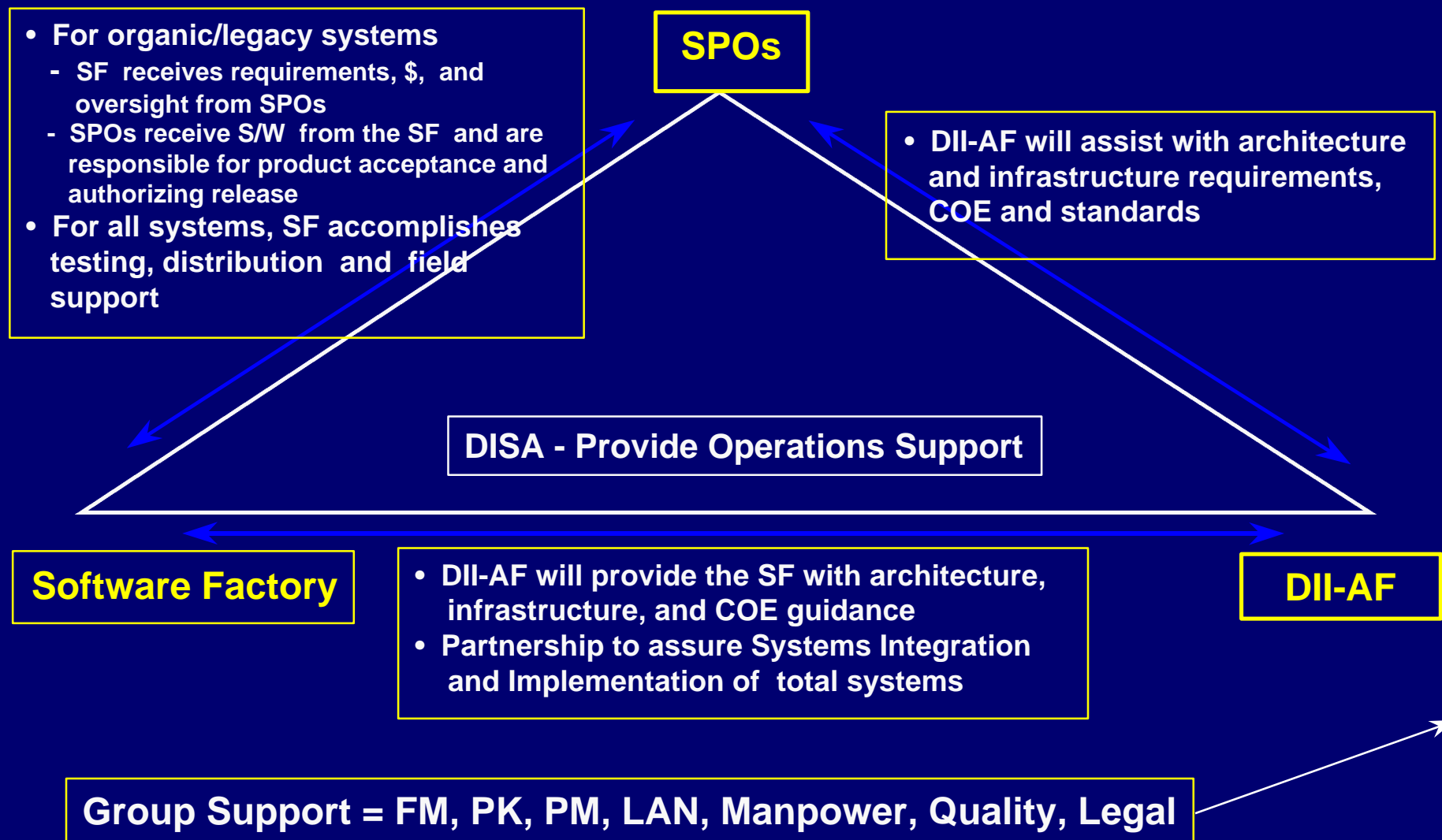
## ATTRIBUTES

- Consistency in the Way Work Is Accomplished
- Defined, Documented, and Able to Be Improved
- Supported Visibly by Management and Others
- Process Fidelity Is Audited and Enforced
- Measurements Used
- Disciplined Use of Technology
- Can Repeat Successes / Fix Failures

**COMMON THEMES THROUGH THE CMM**

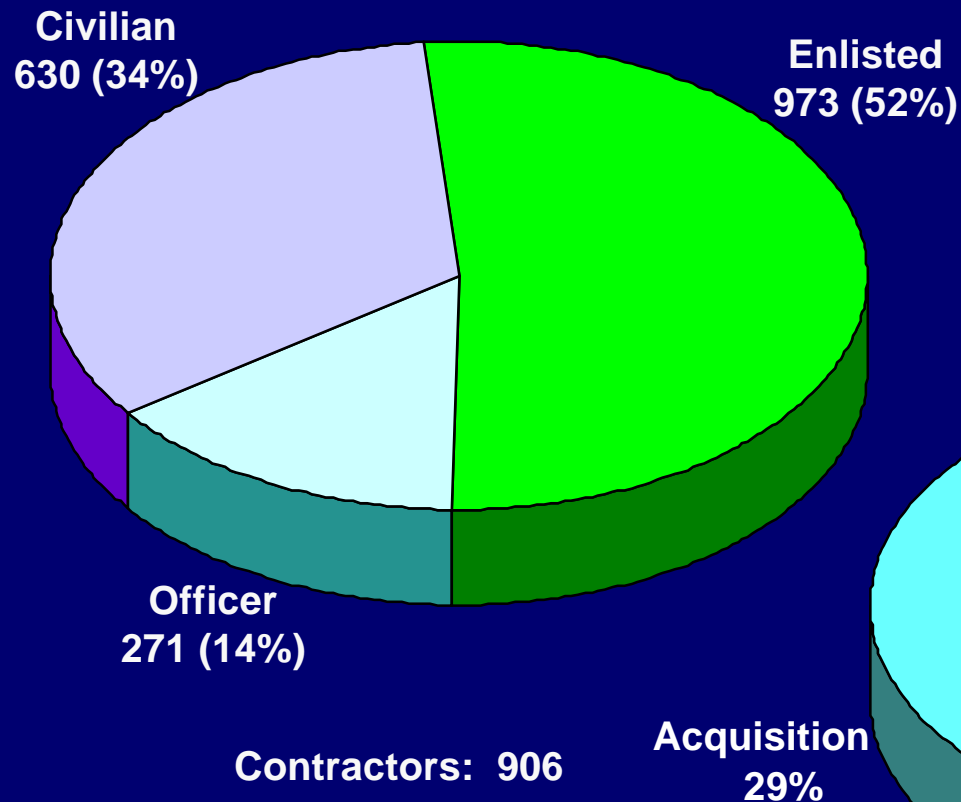


## KEY RELATIONSHIPS



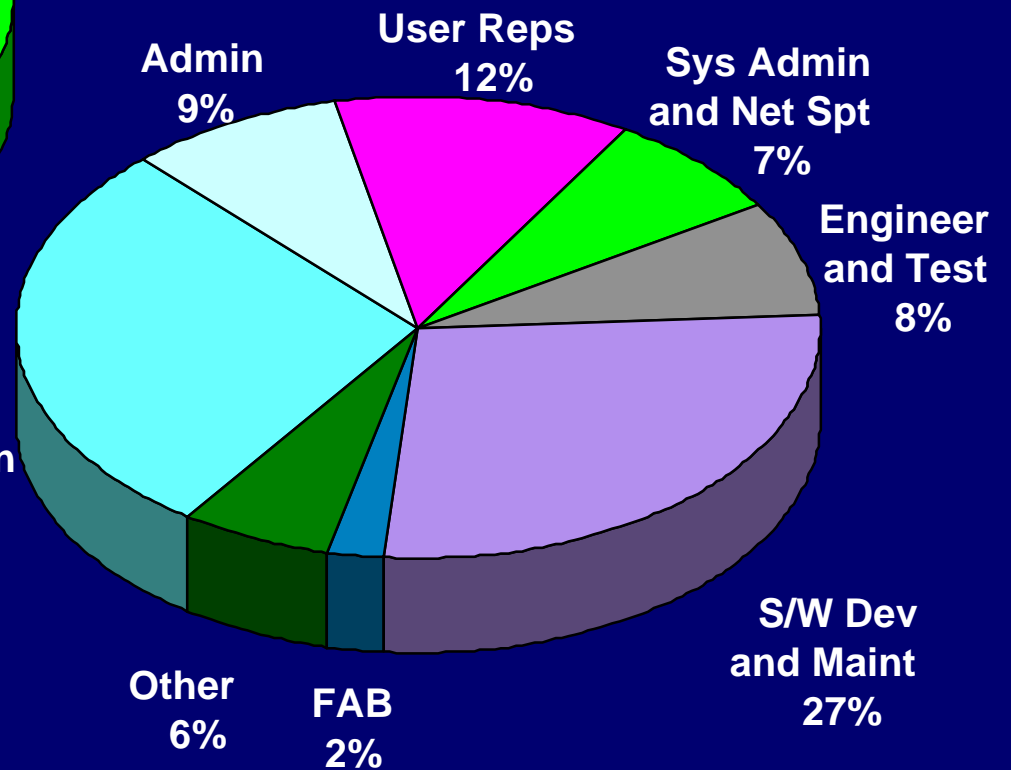


# HQ SSG MANPOWER



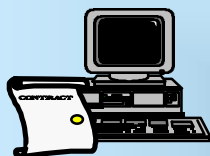
**Total Authorized: 1874  
(FY 98)**

**Total Assigned: 1666**

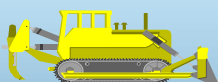


# HQ SSG FACTORY SOFTWARE

CONTRACTING



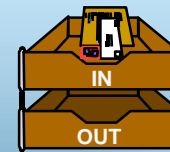
CIVIL ENGINEERING



SECURITY POLICE



INFORMATION  
MANAGEMENT



COMMISSARY



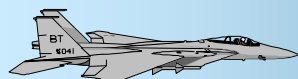
TRANSPORTATION



MAINTENANCE



OPERATIONS



MEDICAL



MANPOWER



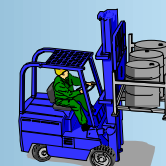
MUNITIONS



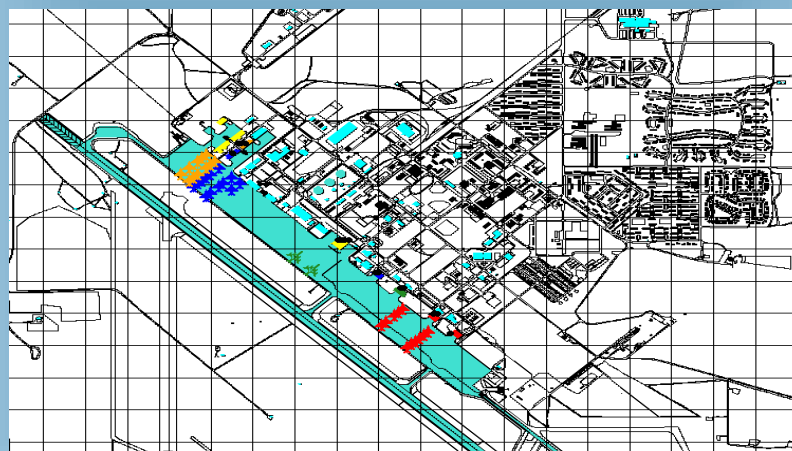
BUDGETING, ACCOUNTING  
AND FINANCE



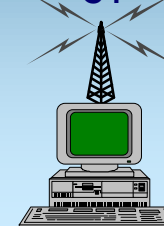
SUPPLY



BASE  
SERVICES



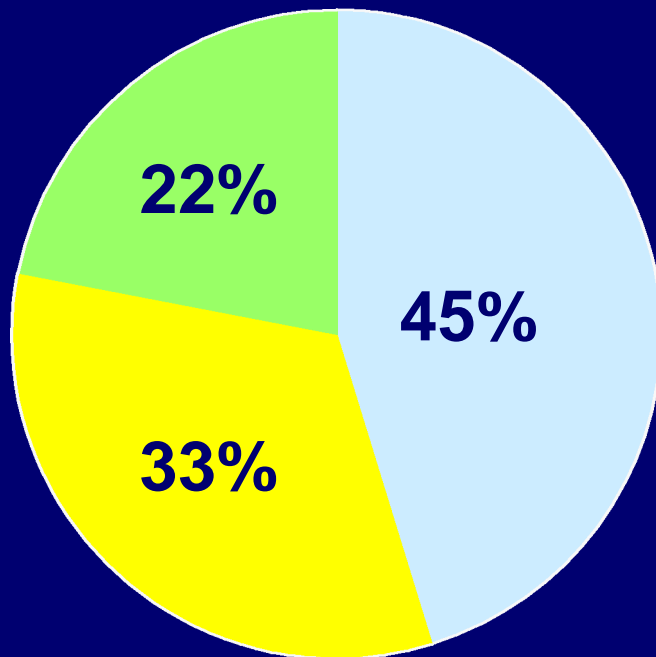
C4



# HQ SSG FACTORY SYSTEMS

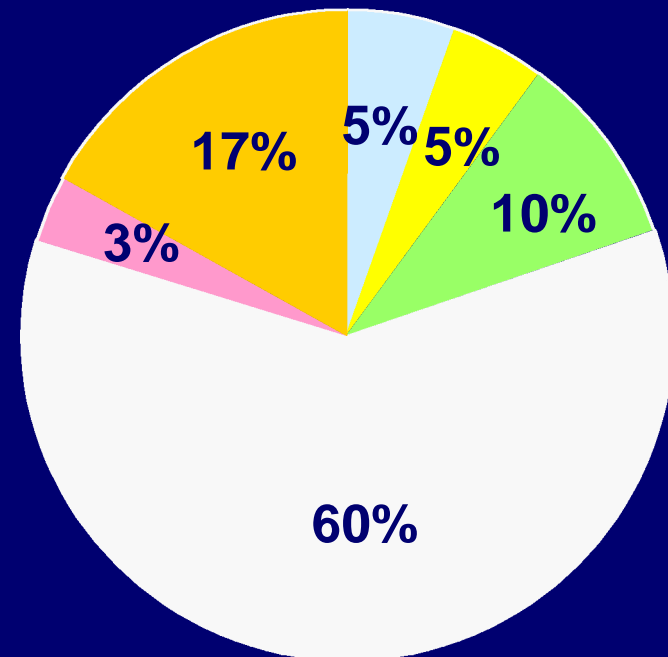
88 SYSTEMS / 32.6M Lines of Code

## PLATFORMS



■ MAIN FRAME 32  
■ CLIENT SERVER 17  
■ PC 39

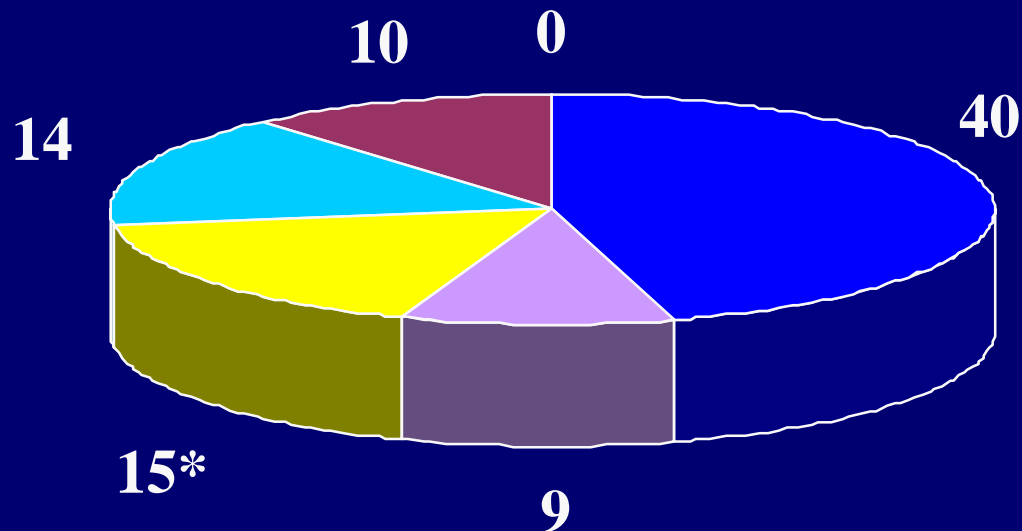
## LANGUAGES



■ Ada  
■ ASSEMBLER  
■ C  
■ COBOL  
■ FORTRAN  
■ 4GL

# HQ SSG Y2K STATUS

## Phase Status: 88 Systems

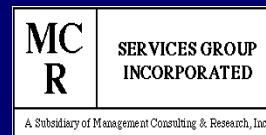


***All Systems will be certified by Dec 98***

**\* 9 Certified Compliant systems**



## Major Contractors Supporting HQ SSG Software Factory Today



# EXISTING CONTRACTS

- ◆ **Current contract vehicles (In-work with PK)**
  - **MISTS II, TEMS IV, 8a, GCSS-AF, IMDS, DEIS, BPA, GSA**
  - **Contractor(s) Lockheed Martin, Unisys, EDS, TRW, LITTON PRC, GTE, NCI, Sumaria Systems, Tec-Masters (Issuing Office: ESC/PK and HQ SSG/PK)**
  - **Type vehicle (ID/IQ, basic contract, BPA)**
  - **Products/Services (Customer Support, Testing Support, LAN Management, System Engineering Support, Etc.)**
  - **Approximately 25% of the software development out-sourced**

# **FUTURE NEEDS/TRENDS**

- ◆ **Most new requirements will come thru the SPOs**
- ◆ **More outsourcing for factory and group support**
  - **Software Development/Maintenance**
  - **Help Desk**
  - **Testing**
  - **Engineering**
  - **Program Control Support**
  - **Configuration Management**
  - **Training and Installation**
- ◆ **Envision using existing and other contract vehicles**

# EVALUATION CONSIDERATIONS

## ◆ Past Performance

- Systems Engineering Process
- On Cost and Schedule
- Large Scale Complex MIS
- Systems Integration
- Maintenance
- Partnerships

## ◆ Practical approaches to reduce cost and improve customer satisfaction



# **FUTURE INDUSTRY ACTIVITIES**

- ◆ **Montgomery Chamber of Commerce  
Partnership Day, 19 May 1998**
  - **Information Technology Committee**
- ◆ **Annual Air Force Information Technology  
Conference, 31 August- 4 September 1998**

# HQ SSG CONTACTS

- ◆ <http://www.ssg.gunter.af.mil/>
  - Evolving organization structure
  - Bluebook (AIS Summary)
  - Senior management biographies
  - Major events
- ◆ Vendor Liaison
  - Mr. Ray Baker, HQ SSG/PKP: (334) 416-3321
  - E-mail: [bakerr@ssg.gunter.af.mil](mailto:bakerr@ssg.gunter.af.mil)

# SUMMARY

- ◆ HQ SSG is in the process of setting up a full service software Support Factory
- ◆ Support Factory is already using a substantial amount of contract support
- ◆ The trend is toward more outsourcing for support and more outsourcing for specific software development